

Nuclear Regulatory Commission

§ 100.21

exposed to the radiation effects from simultaneous releases. The applicant would be expected to justify to the satisfaction of the Commission the basis for such a reduction in the source term.

(3) The applicant is expected to show that the simultaneous operation of multiple reactors at a site will not result in total radioactive effluent releases beyond the allowable limits of applicable regulations.

NOTE: For further guidance in developing the exclusion area, the low population zone, and the population center distance, reference is made to Technical Information Document 14844, dated March 23, 1962, which contains a procedural method and a sample calculation that result in distances roughly reflecting current siting practices of the Commission. The calculations described in Technical Information Document 14844 may be used as a point of departure for consideration of particular site requirements which may result from evaluation of the characteristics of a particular reactor, its purpose and method of operation.

Copies of Technical Information Document 14844 may be obtained from the Commission's Public Document Room, 2120 L Street NW., Washington, DC, or by writing the Director of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

[27 FR 3509, Apr. 12, 1962, as amended at 31 FR 4670, Mar. 19, 1966; 38 FR 1273, Jan. 11, 1973; 40 FR 8793, Mar. 3, 1975; 40 FR 26527, June 24, 1975; 53 FR 43422, Oct. 27, 1988]

Subpart B—Evaluation Factors for Stationary Power Reactor Site Applications on or After January 10, 1997

SOURCE: 61 FR 65176, Dec. 11, 1996, unless otherwise noted.

EFFECTIVE DATE NOTE: At 61 FR 65176, Dec. 11, 1996, subpart B was added, effective Jan. 10, 1997.

§ 100.20 Factors to be considered when evaluating sites.

The Commission will take the following factors into consideration in determining the acceptability of a site for a stationary power reactor:

(a) Population density and use characteristics of the site environs, including the exclusion area, the population distribution, and site-related charac-

teristics must be evaluated to determine whether individual as well as societal risk of potential plant accidents is low, and that physical characteristics unique to the proposed site that could pose a significant impediment to the development of emergency plans are identified.

(b) The nature and proximity of man-related hazards (e.g., airports, dams, transportation routes, military and chemical facilities) must be evaluated to establish site parameters for use in determining whether a plant design can accommodate commonly occurring hazards, and whether the risk of other hazards is very low.

(c) Physical characteristics of the site, including seismology, meteorology, geology, and hydrology.

(1) Section 100.23, "Geologic and seismic siting factors," describes the criteria and nature of investigations required to obtain the geologic and seismic data necessary to determine the suitability of the proposed site and the plant design bases.

(2) Meteorological characteristics of the site that are necessary for safety analysis or that may have an impact upon plant design (such as maximum probable wind speed and precipitation) must be identified and characterized.

(3) Factors important to hydrological radionuclide transport (such as soil, sediment, and rock characteristics, adsorption and retention coefficients, ground water velocity, and distances to the nearest surface body of water) must be obtained from on-site measurements. The maximum probable flood along with the potential for seismically induced floods discussed in § 100.23 (d)(3) must be estimated using historical data.

§ 100.21 Non-seismic siting criteria.

Applications for site approval for commercial power reactors shall demonstrate that the proposed site meets the following criteria:

(a) Every site must have an exclusion area and a low population zone, as defined in § 100.3;

(b) The population center distance, as defined in § 100.3, must be at least one and one-third times the distance from the reactor to the outer boundary of the low population zone. In applying